



# 1998 Toxics Release Inventory

## WASHINGTON

### Reported Releases and Waste Management Activities (in pounds)

	Original Industries	New Industries	Total
On-site Releases	25,446,704	5,191,490	30,638,194
Air Emissions	21,604,993	1,257,003	22,861,996
Surface Water Discharges	3,497,496	863	3,498,359
Underground Injection Class I Wells	0	0	0
Underground Injection Class II-V Wells	0	0	0
On-site Land Releases to RCRA Subtitle C Landfills	255	0	255
Other On-site Land Releases	343,960	3,933,624	4,277,584
Off-site Releases (Transfers Off-site to Disposal)*	2,283,466	1,569,468	3,852,934
<b>Total On- and Off-site Releases</b>	<b>27,730,170</b>	<b>6,760,958</b>	<b>34,491,128</b>
Recycled On-site	87,128,868	0	87,128,868
Recycled Off-site	6,791,475	425	6,791,900
Energy Recovery On-site	14,323,943	0	14,323,943
Energy Recovery Off-site	949,756	432	950,188
Treated On-site	73,796,501	728,527	74,525,028
Treated Off-site**	3,987,101	70,767	4,057,868
Quantity Released On- and Off-site***	31,444,599	5,362,448	36,807,047
<b>Total Production-related Waste Managed</b>	<b>218,422,243</b>	<b>6,162,599</b>	<b>224,584,842</b>
<b>Total Non-production-related Waste Managed</b>	<b>115,891</b>	<b>0</b>	<b>115,891</b>

### Transfers Off-site for Further Waste Management/Disposal

Recycling	5,845,470	1,007,317	6,852,787
Energy Recovery	932,436	1,108,223	2,040,659
Treatment	1,035,560	330,766	1,366,326
Publicly Owned Treatment Works (POTWs)	2,714,050	3,663	2,717,713
Metals and Metal Compounds*	2,700	7	2,707
Non-metal TRI Chemicals**	2,711,350	3,656	2,715,006
Other Off-site Transfers****	236,279	0	236,279
Off-site Transfers to Disposal (not including metals to POTWs)	6,659,439	1,813,888	8,473,327
<b>Total Transfers Off-site for Further Waste Management/Disposal</b>	<b>17,423,234</b>	<b>4,263,857</b>	<b>21,687,091</b>

\* Transfers to POTWs of metals and metal compounds are included in off-site releases. Excludes transfer amounts sent for disposal to other TRI facilities reporting that amount released on-site.

\*\* Transfers to POTWs of non-metals are included in treated off-site waste management activity.

\*\*\* Excludes non-production-related releases; e.g. releases due to catastrophic events or remedial actions.

\*\*\*\* Transfers reported without a valid waste management code.

### For More Information . . .

#### State Contact:

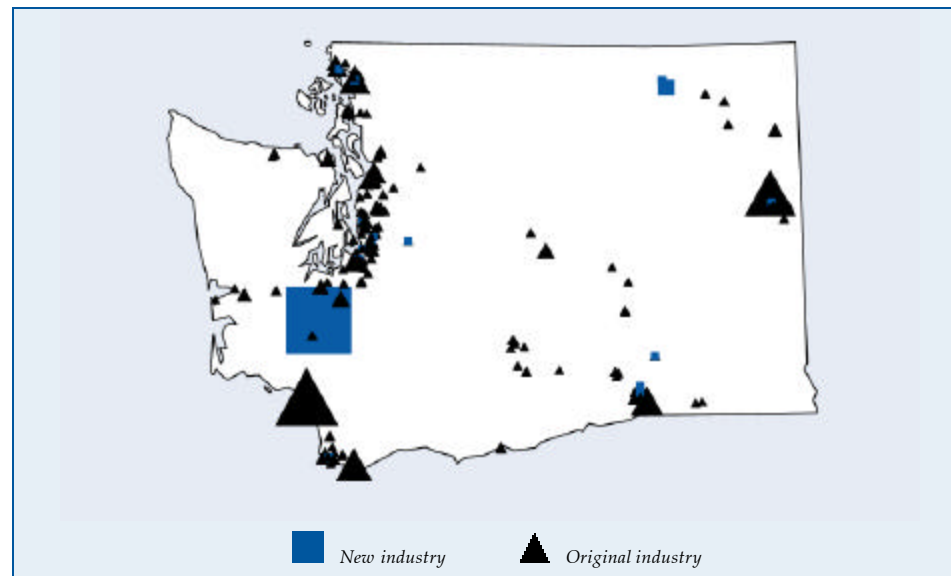
Idell Hansen  
(360) 407-6727  
Fax: (360) 407-6715

#### EPA Regional Contact:

Christina Colt  
(206) 553-4016  
Fax: (206) 553-8509

#### To obtain TRI data use assistance, call TRI User Support Service (TRI-US):

(202) 260-1531  
Fax: (202) 401-2347



The largest marker in the state map represents the largest facility for on-site releases in the state of Washington. All markers are proportionally-sized to represent the on-site releases at each facility within this state.

### State/TRI Data

Population	5,689,263
Square Miles	66,581
Total Facilities	309
Total Forms	1,119
Form As	168

	Original Industries	New Industries	Total
<b>National Rank for Total On- and Off-site Releases*</b>			
Rank	27	44	35
Pounds	27,730,170	6,760,958	34,491,128
<b>National Rank for Total On-site Releases**</b>			
Rank	26	44	35
Pounds	25,446,704	5,191,490	30,638,194
<b>National Rank for Total Releases within State***</b>			
Rank	26	44	35
Pounds	26,259,376	6,342,539	32,601,915
<b>National Rank for Production-related Waste Managed</b>			
Rank	29	45	33
Pounds	218,422,243	6,162,599	224,584,842

\* Includes transfers out-of-state for disposal. Excludes transfer amounts sent for disposal to other TRI facilities reporting that amount released on-site.

\*\* Includes amounts released at the facility. Excludes amounts transferred to other sites.

\*\*\* Excludes transfers for disposal sent out-of-state or sent to other TRI facilities within the state reporting that amount released on-site.



# 1998 Toxics Release Inventory

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## On-site and Off-site Releases for Top Ten Chemicals Ranked on Total Releases in the State (Original Industries)

CAS Number	Chemical	On-site Releases				Off-site Releases	Total Releases in the State**	Off-site Transfers to Disposal		
		Air Emissions Pounds	Surface Water Discharges Pounds	Underground Injection Pounds	On-site Releases to Land Pounds	Transfers Off-site to Disposal* Pounds		Transferred Into State Pounds	Transferred Within State Pounds	Transferred Out of State Pounds
67-56-1	Methanol	4,862,266	679,816	0	4,568	750	5,547,400	0	750	0
—	Zinc compounds	36,149	33,729	0	250	3,793,396	3,863,524	18	124,229	3,669,167
7664-39-3	Hydrogen fluoride	2,894,430	0	0	45	12,492	2,906,967	0	12,313	179
—	Nitrate compounds	521	2,053,584	0	116,801	521,905	2,692,811	0	5	521,900
7664-41-7	Ammonia	1,672,071	305,937	0	111,013	97,891	2,186,912	0	80,965	16,926
463-58-1	Carbonyl sulfide	2,091,468	0	0	0	0	2,091,468	0	0	0
100-42-5	Styrene	1,413,149	238	0	0	5	1,413,392	0	5	0
78-93-3	Methyl ethyl ketone	1,031,188	3,592	0	848	1,787	1,037,415	130	145	1,642
7647-01-0	Hydrochloric acid	1,009,102	0	0	0	0	1,009,102	0	0	0
7664-93-9	Sulfuric acid	911,681	0	0	0	0	911,681	0	0	0

\* Excludes amounts transferred to other TRI facilities in the state reporting that amount released on-site.

\*\* The chemical ranking is based on the amounts in this column.

## On-site and Off-site Releases for Top Ten Chemicals Ranked on Total Releases in the State (Seven New Industries)

CAS Number	Chemical	On-site Releases				Off-site Releases	Total Releases in the State**	Off-site Transfers to Disposal		
		Air Emissions Pounds	Surface Water Discharges Pounds	Underground Injection Pounds	On-site Releases to Land Pounds	Transfers Off-site to Disposal* Pounds		Transferred Into State Pounds	Transferred Within State Pounds	Transferred Out of State Pounds
—	Barium compounds	922	503	0	1,234,250	32,570	1,268,245	29,000	32,570	0
—	Manganese compounds	362	109	0	777,222	8,066	785,759	4,500	8,066	0
—	Zinc compounds	14	24	0	624,913	33,348	658,299	3,200	28,909	4,439
7664-39-3	Hydrogen fluoride	645,368	0	0	0	0	645,368	0	0	0
107-21-1	Ethylene glycol	255	0	0	0	617,655	617,910	0	617,655	0
1332-21-4	Asbestos (friable)	0	0	0	0	378,455	378,455	0	3,280	375,175
—	Lead compounds	131	8	0	328,331	2,491	330,961	1,016	1,604	887
—	Copper compounds	151	18	0	278,527	8,446	287,142	1,700	8,446	0
7647-01-0	Hydrochloric acid	256,946	0	0	0	0	256,946	0	0	0
—	Chromium compounds	60	3	0	155,736	49,082	204,881	3,202	4,902	44,180

\* Excludes amounts transferred to other TRI facilities in the state reporting that amount released on-site.

\*\* The chemical ranking is based on the amounts in this column.



# 1998 Toxics Release Inventory

## WASHINGTON

### On- and Off-site Releases for Top Ten Facilities Ranked on Total On-site Releases in the State (Original Industries)

Facility, City, County	On-site Releases						Total On-site Releases* Pounds	Off-site Releases (Transfers Off-site to Disposal)	
	Underground Injection				On-site Releases to Land			Transferred Within State Pounds	Transferred Out of State Pounds
	Air Emissions Pounds	Surface Water Discharges Pounds	Class I Wells Pounds	Class II-V Wells Pounds	RCRA Subtitle C Landfills Pounds	Other On-site Land Releases Pounds			
Weyerhaeuser Co., Longview, Cowlitz	2,953,604	271,566	0	0	0	0	3,225,170	148,189	0
Kaiser Aluminum & Chemical Corp. — Mead Works, Mead, Spokane	2,483,255	284	0	0	0	250	2,483,789	250	17,615
Fort James Camas L.L.C., Camas, Clark	1,124,405	436,050	0	0	0	1,625	1,562,080	0	3,300
Boise Cascade Paper Div., Wallula, Walla Walla	1,232,372	89,344	0	0	0	39,118	1,360,834	0	7
Georgia-Pacific West Inc., Bellingham, Whatcom	442,714	864,589	0	0	0	0	1,307,303	901	3,052
Simpson Tacoma Kraft Co., Tacoma, Pierce	956,708	68,041	0	0	0	0	1,024,749	84	0
Unocal Agricultural Prods. Kennewick Plant, Kennewick, Benton	834,255	32,569	0	0	0	114,196	981,020	0	538,826
Kimberly-Clark Tissue Co., Everett, Snohomish	176,380	567,100	0	0	0	0	743,480	74,300	0
Boeing Commercial Airplane Group — Everett, Everett, Snohomish	697,338	562	0	0	0	0	697,900	26,449	681
Intalco Aluminum Corp., Ferndale, Whatcom	608,553	0	0	0	0	0	608,553	0	0

\*The facility ranking is based on the amounts in this column; these quantities exclude transfers out of state.

### On- and Off-site Releases for Top Ten Facilities Ranked on Total On-site Releases in the State (Seven New Industries)

Facility, City, County	On-site Releases						Total On-site Releases* Pounds	Off-site Releases (Transfers Off-site to Disposal)	
	Underground Injection				On-site Releases to Land			Transferred Within State Pounds	Transferred Out of State Pounds
	Air Emissions Pounds	Surface Water Discharges Pounds	Class I Wells Pounds	Class II-V Wells Pounds	RCRA Subtitle C Landfills Pounds	Other On-site Land Releases Pounds			
Centralia Power Plant, Centralia, Lewis	1,064,674	738	0	0	0	3,364,931	4,430,343	88,071	0
Kettle River Ops. Mill, Republic, Ferry	27,040	0	0	0	0	547,015	574,055	4	0
Encogen Northwest Cogeneration Plant, Bellingham, Whatcom	59,005	0	0	0	0	0	59,005	0	0
Tidewater Terminal Co. Snake River Terminal, Pasco, Franklin	24,585	0	0	0	0	7,063	31,648	0	10,072
Unocal Agricultural Prods., Kennewick, Benton	8,820	125	0	0	0	14,600	23,545	0	0
Northwest Terminalling Co. (Pasco), Pasco, Franklin	13,755	0	0	0	0	0	13,755	0	81
City of Tacoma Steam Plant No 2, Tacoma, Pierce	12,762	0	0	0	0	5	12,767	7	0
Tosco, Renton Terminal, Renton, King	12,064	0	0	0	0	0	12,064	0	0
Conoco Parkwater Product Terminal, Spokane, Spokane	10,338	0	0	0	0	0	10,338	0	0
Equilon Seattle Terminal, Seattle, King	4,500	0	0	0	0	0	4,500	1,500	0

\*The facility ranking is based on the amounts in this column; these quantities exclude transfers out of state.



# 1998 Toxics Release Inventory

## WASHINGTON

### Total Production-related Waste for Top Ten Facilities Ranked on Quantity Released On- and Off-site (Original Industries)

Facility, City, County	Recycled On-site Pounds	Recycled Off-site Pounds	Energy Recovery On-site Pounds	Energy Recovery Off-site Pounds	Treated On-site Pounds	Treated Off-site Pounds	Quantity Released On- and Off-site*	Total Production- related Waste Managed Pounds	Total Non- Production- related Waste Managed Pounds
Birmingham Steel Corp. Seattle WA. Steel Div., Seattle, King	0	116,654	0	0	0	0	4,325,797	4,442,451	0
Weyerhaeuser Co., Longview, Cowlitz	1,900	0	0	900	11,069,220	0	3,369,510	14,441,530	6,624
Kaiser Aluminum & Chemical Corp. — Mead Works, Mead, Spokane	2,790	300,000	0	0	63,000	0	2,500,300	2,866,090	0
Fort James Camas L.L.C., Camas, Clark	0	0	954,100	0	12,553,600	8,074	1,581,000	15,096,774	485
Unocal Agricultural Prods. Kennewick Plant, Kennewick, Benton	0	0	0	0	0	0	1,415,830	1,415,830	104,310
Boise Cascade Paper Div., Wallula, Walla Walla	0	0	19,000	0	8,987,200	0	1,359,255	10,365,455	0
Georgia-Pacific West Inc., Bellingham, Whatcom	1,604,120	0	0	0	4,229,110	0	1,312,629	7,145,859	118
Reynolds Metals Co., Longview Reduction Plant, Longview, Cowlitz	0	23,865	0	0	3,506,023	2,471	1,195,852	4,728,211	0
Simpson Tacoma Kraft Co., Tacoma, Pierce	0	0	309,142	0	7,361,850	0	1,024,867	8,695,859	25
Kimberly-Clark Tissue Co., Everett, Snohomish	0	0	169,000	0	3,865,700	74,800	743,140	4,852,640	0

\*The facility ranking is based on the amounts in this column; these quantities exclude non-production-related releases.

### Total Production-related Waste for Top Ten Facilities Ranked on Quantity Released On- and Off-site (Seven New Industries)

Facility, City, County	Recycled On-site Pounds	Recycled Off-site Pounds	Energy Recovery On-site Pounds	Energy Recovery Off-site Pounds	Treated On-site Pounds	Treated Off-site Pounds	Quantity Released On- and Off-site*	Total Production- related Waste Managed Pounds	Total Non- Production- related Waste Managed Pounds
Centralia Power Plant, Centralia, Lewis	0	0	0	0	83,365	0	4,527,683	4,611,048	0
Kettle River Ops. Mill, Republic, Ferry	0	0	0	0	0	23	574,000	574,023	0
Encogen Northwest Cogeneration Plant, Bellingham, Whatcom	0	0	0	0	0	0	59,004	59,004	0
City of Tacoma Steam Plant No 2, Tacoma, Pierce	0	0	0	0	0	0	57,149	57,149	0
Tidewater Terminal Co. Snake River Terminal, Pasco, Franklin	0	0	0	0	18,043	10,072	43,110	71,225	0
Unocal Agricultural Prods., Kennewick, Benton	0	0	0	0	0	0	23,420	23,420	0
Lamefoot Mine, Republic, Ferry	0	0	0	0	0	0	21,000	21,000	0
Northwest Terminalling Co. (Pasco), Pasco, Franklin	0	0	0	0	51,400	189	13,850	65,439	0
Tosco, Renton Terminal, Renton, King	0	0	0	7	574,220	2,030	11,973	588,230	0
Conoco Parkwater Product Terminal, Spokane, Spokane	0	0	0	0	0	57,828	8,997	66,825	0

\*The facility ranking is based on the amounts in this column; these quantities exclude non-production-related releases.